

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:  
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## PCT

### WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing (day/month/year)	29 March 2005 (29-03-2005)
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Applicant's or agent's file reference  
008998-0014

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.

**PCT/CA2005/000005**

International filing date (day/month/year)

06 January 2005 (06-01-2005)

Priority date (day/month/year)

07 January 2004 (07-01-2004)

International Patent Classification (IPC) or both national classification and IPC  
IPC<sup>7</sup> H03H-11/02, H04L-12/28, H04L-12/02, H04L-29/02, H04L-5/14

Applicant

**ALSTOM CANADA INC. ET AL**

1. This opinion contains indications relating to the following items :

- |                                     |              |   |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I    | Basis of the opinion  |
| <input type="checkbox"/>            | Box No. II   | Priority  |
| <input type="checkbox"/>            | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  |
| <input type="checkbox"/>            | Box No. IV   | Lack of unity of invention  |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Rule 43bis.1(a)(I) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement. |
| <input type="checkbox"/>            | Box No. VI   | Certain documents cited   |
| <input type="checkbox"/>            | Box No. VII  | Certain defects in the international application  |
| <input checked="" type="checkbox"/> | Box No. VIII | Certain observations on the international application   |

**2. FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/CA  
Canadian Intellectual Property Office  
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**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/CA2005/000005

**Box No. I      Basis of this opinion**

1. With regard to the language, this opinion has been established on the basis of the international application in the language which it was filed, unless otherwise indicated under this item.  
  
[ ] This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of :
  - a. type of material
    - [ ] a sequence listing
    - [ ] table(s) related to the sequence listing
  - b. format of material
    - [ ] in written format
    - [ ] in computer readable form
  - c. time of filing/furnishing
    - [ ] contained in the international application as filed.
    - [ ] filed together with the international application in computer readable form.
    - [ ] furnished subsequently to this Authority for the purposes of search.
3. [ ] In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statement that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments :

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/CA2005/000005

**Box No. V**

**Reasoned statement under Rule 43bis.1(a)(I) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Claims <u>1-24</u>	YES
	Claims <u>NONE</u>	NO
Inventive step (IS)	Claims <u>1-24</u>	YES
	Claims <u>NONE</u>	NO
Industrial applicability (IA)	Claims <u>1-24</u>	YES
	Claims <u>NONE</u>	NO

**2. Citations and explanations :**

Reference is made to the following documents:

D1: US 6,212,263 B1 (Sun et al.) 03 Apr. 2001 (03-04-2001)

D2: Product Data Sheet - Homelan Magnetics 10Mbps Filter Modules <http://www.belfuse.com/Data/DBObject/LM00100.pdf> (copyright 2001)

D1 discloses an analog front-end (see Fig. 6) for interconnecting a network communicative device (CODEC) to a two-conductor based network (telephone line), comprising:

- input and output leads for connection to the network communicative device;
- network leads for connection to the two-conductor based network;
- a differential amplifier (502) having an input connected to the input leads, and an output connected to a transformer;
- a power supply circuit for operative power supply of electronic components of the analog front-end (see claim 1).

D2 discloses a transformer having a primary coil and first and second secondary coils, the primary coil being connected to a first terminal set, the first and second secondary coils being connected respectively to second and third terminal sets (1,3 and 5,7), the transformer providing first and second coupling channels.

Although D1 discloses a line driver (510) at the receiving portion of the circuit, D1 does not disclose that this device performs attenuation. Furthermore, there is no motivation in the prior art on record for incorporating the circuit of D2 into the analog front-end circuit of D1 and arranging the elements in the manner specified in claim 1.

**Summary**

**ARTICLE 33(2) PCT - NOVELTY**

Claims 1 to 24 are novel in view of the prior art on record, thereby fulfilling the requirements of Article 33(2) PCT.

**ARTICLE 33(3) PCT - INVENTIVE STEP**

Claims 1 to 24 are considered inventive in view of the prior art on record, thereby fulfilling the requirements of Article 33(3) PCT.

**ARTICLE 33(4) PCT - INDUSTRIAL APPLICABILITY**

Claims 1 to 24 are industrially applicable, thereby fulfilling the requirements of Article 33(4) PCT.

**Box No. VIII**    **Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made :

Applicant is invited to amend the claims to include numeral references to the technical features of the drawings (PCT Rule 6.2(b)).

Dependent claim 14 is not drafted in accordance with PCT Rule 6.4(a). A dependent claim should reference the claim upon which it depends at the beginning, and shall then state the additional features claimed.

Reference character 8 mentioned on page 7, lines 7 and 15 does not appear in figure 5 (PCT Rule 11.13(I)).